

## **REMARKS**

Claims 1-14 are pending in the application.

Claims 5 and 10 are rejected under 35 U.S.C. §112, first paragraph.

Claims 1-14 are rejected under 35 U.S.C. §112, second paragraph.

Claims 1, 2, and 4-14 are rejected under 35 U.S.C. §103(a).

Claim 3 is rejected under 35 U.S.C. §103(a).

Claims 1, 5 and 10 are amended.

No new matter is added.

Applicant requests reconsideration and allowance of all pending claims in light of the above amendments and following remarks.

### ***Claim Rejections – 35 U.S.C. §112 – Written Description***

Claims 5 and 10 are rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement.

Claims 5 and 10 are amended to delete limitations “and its derivatives” following Vitamin C, Vitamin E, and Vitamin A to further clarify the patentable subject matter of the claimed invention. Accordingly, the rejection of claims 5 and 10 under 35 U.S.C. 112, first paragraph, under is now overcome.

### ***Claim Rejections – 35 U.S.C. §112 - Indefinite***

Claims 1-14 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The Office Action states that it is unclear whether the term “EGCG” is intended to be an abbreviation or a further limitation. Claim 1 is amended to delete the term “EGCG” from claim 1 to facilitate the allowance of this case. Thus, the rejection of claims 1-14 under 35 U.S.C. 112, second paragraph, under is now overcome.

### ***Claim Rejections – 35 U.S.C. §103***

Claims 1, 2, and 4-14 are rejected under 35 U.S.C. §103(a) as being unpatentable over Ha et al (KR 110150271) in view of Protzniuk et al (J of Pham Sci, Vol 91, No 1, (2002) 111-116).

Claim 3 is rejected under 35 U.S.C. §103(a) as being unpatentable over Ha et al (KR 110150271) in view of Protzniuk et al (J of Pham Sci, Vol 91, No 1, (2002) 111-116), the combination further in view of Morre et al (US 6,410,052). Applicant respectfully traverses the rejections.

The claimed invention is directed to a **composition** for stabilizing Epigallocatechin gallate (EGCG) in water phase including not only **EGCG** but also (dissolved in) **water or a mixture of water and a hydrophilic solvent**, i.e., a water solution or hydrophilic/water solution of EGCG.

In contrast, Ha does not teach or suggest the stabilization of EGCG **in water phase or a hydrophilic solvent** and merely teaches a “**solidified**” chitosan microsphere (powders) and a process for making the same.

Furthermore, a cationic polymer (e.g., chitosan) in the claimed invention is included to stabilize EGCG in water phase. Thus, it is not desirable to use the amount of chitosan more than the amount of EGCG. For this reason, the claimed invention limits the amount of a cationic polymer and an anionic polymer to 0.1~5.0% by weight, while the amount of EGCG is in a range of 0.1~25.0% by weight.

However, in Ha, chitosan is added in an amount much more than that of EGCG. In this respect, the Office Action states that “Ha et al teaches making micro spheres of 2 grams green tea (-)-epigallocatechin gallate (EGCG) with 29 grams chitosan.” Thus, in Ha, chitosan would not be used to stabilize EGCG.

Also, in Ha, although the solvent might include water, hexane, and a sorbitol compound, they are not part of the product, but merely used to form chitosan powders.

Thus, Ha does not teach or disclose, “a **composition** for stabilizing Epigallocatechin gallate in water phase **comprising** 0.1~25.0% by weight of Epigallocatechin gallate, 0.1~5.0% by weight of a mixture of a cationic polymer and an anionic polymer, 0.1~10.0% by weight of antioxidant, **and water or the mixture of water and a hydrophilic solvent in a remainder**,” as recited in claim 1.

The PTO has the burden under section 103 to establish a *prima facie* case of obviousness.” *In re Fine*, 837 F.2d 1071, 1074 (Fed. Cir. 1988) (citing *In re Piasecki*, 745 F.2d 1468, 1471-72 (Fed. Cir. 1984)). A *prima facie* case of obviousness

requires a showing that *each and every element* of the claims is present in some combination of prior art references, or that the claimed invention would be an obvious modification of those references. *See, e.g., In re Kotzab*, 217 F.3d 1365, 1369-70 (Fed. Cir. 2000); *In re Rouffet*, 149 F.3d 1350, 1355 (Fed. Cir. 1998).

In addition, “[a]ll words in a claim must be considered in judging the patentability of that claim against the prior art.” *Application of Wilson*, 424 F.2d 1382, 1385 (CCPA 1970) (emphasis added).

Therefore, the rejection does not present a *prima facie* case of obviousness as the prior art does not teach or disclose all of the limitations of claim 1. Accordingly, claim 1 is in condition for allowance. Also, claims 2-7 and 12-14, which depend from allowable claim 1, are also in condition for allowance for their dependency and their own merits.

With respect to claim 8, which include limitations similar to claim 1, the Office Action does not seem to point out specific teaching of the prior art that correspond to particular limitations of the claimed invention recited in claim 8. For this reason only, the rejection does not preset a *prima facie* case of obviousness.

Further, as discussed above, Ha is directed to manufacturing chitosan powders while the claimed invention is directed to a **composition** for stabilizing Epigallocatechin gallate (EGCG) in water phase including not only **EGCG** but also (dissolved in) **water or a mixture of water and a hydrophilic solvent**. Thus, overall processing steps discussed in Ha are quite different from those discussed in the claimed invention. Accordingly, claim 8 is in condition for allowance. Also, dependent claims 9-11, which depend from allowable claim 8, are also in condition for allowance.

## CONCLUSION

For the foregoing reasons, Applicant requests reconsideration and allowance of all pending claims of the application as amended. The Examiner is encouraged to telephone the undersigned at (503) 896-2643 if it appears that an interview would be helpful in advancing the case.

**Customer No. 83219**

Respectfully submitted,



---

Hosoon Lee  
Reg. No. 56,737

9600 SW Oak St., Suite 525  
Tigard, OR 97223  
Phone) 503-896-2643  
Fax) 503-517-9919